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THE EFFECTS OF FEDERAL INCOME TAX POLICY ON U.S. AGRICULTURE

A STUDY

PREPARED FOR THE USE OF THE

SUBCOMMITTEE ON AGRICULTURE AND TRANSPORTATION

OF THE

JOINT ECONOMIC COMMITTEE CONGRESS OF THE UNITED STATES

DECEMBER 21, 1984

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LETTERS OF TRANSMITTAL

DECEMBER 14, 1984.

Hon. ROGER W. JEPSEN,
Chairman, Joint Economic Committee,
Congress of the United States, Washington, DC.

DEAR MR. CHAIRMAN: Transmitted herewith is a study entitled "The Effects of Federal Income Tax Policy on U.S. Agriculture," written by Dr. Richard W. Dunford. This report was inspired by the issues brought to light by the Joint Economic Committee hearing "Taxes and Agriculture."

Dr. Dunford's effort was undertaken during his tenure at the Congressional Research Service at the suggestion of the Joint Economic Committee. This report provides a concise and understandable overview of what otherwise is very technical and complex. It is as much the duty of the Congress to keep the public informed as it is to be mindful of the effects of policymaking. This document accomplishes both.

The discussion of policy impacts and any controversial provisions of the Tax Code does not necessarily reflect the views of the Joint Economic Committee or its individual members.

The Congressional Research Service is to be commended for its foresight in researching this timely topic and for its willingness to devote resources to produce this report. Such cooperation is appreciated greatly. It is my hope that this study elevates the discussion of two very important issues confronting the American public; namely, agriculture and taxation.

JAMES ABDNOR,
Chairman, Subcommittee on
Agriculture and Transportation.

DECEMBER 12, 1984.

Hon. JAMES ABDNOR,
Chairman, Subcommittee on Agriculture and Transportation, Joint Economic Committee, Congress of the United States, Washington, DC.

DEAR MR. CHAIRMAN: As you have stated and few would disagree, the Federal income tax rules are complex and therefore mysterious. Yet, their effects on economic and social organization can be profound. At your request, the Congressional Research Service has prepared a background report entitled "The Effects of Federal Income Tax Policy on U.S. Agriculture." This report, authored by Dr. Richard Dunford, is intended to remove some of the mystery. The report explains the tax provisions that are particularly

relevant to farming and shows how these tax provisions can make farming attractive to tax shelter investors. How agriculture has been shaped by tax policy is addressed in the final chapter of the report.

Agriculture and tax policy are now at the forefront of congressional, administration, and public attention. I hope that the attached report will be helpful in the Congress' deliberations on these topics.

Sincerely,

GILBERT GUDE,
Director, Congressional Research Service,
Library of Congress.

ABSTRACT

This report begins with a review of the ways of organizing a farm business for Federal income tax purposes, and the tax forms used to report farm income and expenses. The next section presents the income tax provisions particularly or exclusively applicable to farming. The opportunities and limitations for nonfarmers to shelter income in farming activities are then described. Finally, the impacts of pertinent income tax provisions and tax-shelter investments by nonfarmers are examined with respect to farmland prices and ownership, capital/labor mix, farm size, management practices, and commodity supplies and prices.

NOTE

Richard W. Dunford is an Associate Professor in the Department of Agricultural Economics at Washington State University (Pullman).

He has written extensively on rural land use problems, conflicts, and policies. This report was prepared for the Environment and Natural Resources Policy Division of the Congressional Research Service in the Library of Congress (Washington, DC) in partial fulfillment of contract 83-30.

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EXECUTIVE SUMMARY

Farming is a business. The vast majority of farm businesses are organized as sole proprietorships, which involve single individuals or married couples. Sole proprietors are liable for all obligations of the farm business, and make the necessary management decisions. In contrast, these obligations and decisions are shared by two or more general partners (or are made by a general partner on behalf of limited partners) in some farm businesses. Finally, a very small percentage of farms are organized as corporations. Farm corporations are separate legal entities from their owners (one or more individuals, partnerships, or other corporations).

Farm income and expenses for sole proprietors, and net profit or loss for general partners, limited partners, and the owners of some small (Subchapter S) farm corporations are reported on various schedules attached to Form 1040. Thus, almost all net farm income (or loss) is found on individual income tax returns. The remaining farm income (or loss) is reported on corporate tax returns and subjected to corporate tax rates.

There are several Federal income tax provisions applicable to businesses that are particularly beneficial to agriculture. The Accelerated Cost Recovery System [ACRS] depreciation rules are one example. While the ACRS recovery periods are generally shorter than the useful life of most capital assets in most businesses, the ACRS recovery periods are especially short for some farm property, e.g., single-purpose agricultural buildings. The preferential treatment of capital gains is another example of a Federal tax provision that is very beneficial for agriculture because receipts from the sale of many farm assets are treated as capital gain income.

In addition to tax provisions of special importance to farming, there are some tax preferences that are exclusively available to agriculture. For example, farmers can use cash accounting whereas other businesspersons must use accrual accounting. Cash accounting provides potentially valuable opportunities for farmers to minimize their tax liability through mismatching income and expenses. Additionally, many capital expenditures (such as soil and water conservation expenditures and orchard development expenditures) can be deducted by farmers as paid, rather than being capitalized. Farmers also get preferential treatment with respect to installment sales and involuntary exchanges due to adverse weather conditions, e.g., drought.

For income tax purposes a wide variety of taxpayers are considered to be farmers. Consequently, the tax benefits available to operating farmers are also available to nonfarm investors who qualify

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as farmers under Federal income tax laws. These nonfarm investors can utilize their farming tax loss to reduce their tax liability on income from other sources. In other words, they can use farming as a tax shelter. Several limitations have been placed on tax sheltering activities through special rules regarding net operating losses, at-risk limits on losses, limits on deductions for farming syndicates, and the alternative minimum tax. Nevertheless, many farming activities, particularly livestock activities and some perennial crops, are still good tax shelters for nonfarm investors.

Although the precise impact of Federal income tax provisions on U.S. agriculture cannot be measured reliably, the direction of their impact seems clear. Federal income tax policies have:

a. exerted upward pressure on farmland prices;

b. helped concentrate farmland ownership with high-income farmers and nonfarmers, as opposed to beginning farmers;

c. encouraged the substitution of capital for labor;

d. supported growth trends in the number of very small farms and very large farms, at the expense of medium-sized family farms;

e. reduced efficiency in some farm activities (such as pork production) through induced changes in management practices; and

f. increased supplies and lowered prices for some farm commodities in particular, and possibly for all farm commodities in general.

In this report, no attempt has been made to evaluate the desirability of these tax impacts. In general, desirability is a matter of perspective. Although higher land prices increase the wealth of established farmers and enhance their access to debt capital, they also make it more difficult for beginning farmers to get started in agriculture. Hence the former groups may favor this impact of Federal tax policies, while the latter group opposes it. Similarly, lower prices for some farm commodities may make it difficult for some family farmers to pay their bills and remain in agriculture. On the other hand, these lower prices benefit consumers of the particular commodities. So the bane of one segment of society is advantageous for another segment of society. Consequently, the desirability of most of these tax-induced changes is very difficult to determine.

THE EFFECTS OF FEDERAL INCOME TAX POLICY ON U.S. AGRICULTURE

By Richard W. Dunford

INTRODUCTION

In 1983 Federal income taxes generated $326 billion in revenue, which was 54 percent of all Federal revenues in that year (Economic Report of the President 1984, p. 305). Although the principal purpose of Federal income taxes is to produce revenues for the operation of the Federal Government, it has long been recognized that these taxes have other impacts (intended or unintended) on economic activities:

1. they change the cost of producing various products and thus they may influence the way economic activity is organized as well as its efficiency;
2. they may result in a redistribution of income and wealth; and
3. they may influence the resource ownership pattern, and thus the structure, of a sector of the economy (Boehlje 1984, p. 1).

This report provides an overview of these and other impacts of Federal income taxes on the agricultural sector of the U.S. economy.[1]

This overview begins with a review of the ways of organizing a farm business for income tax purposes, and the tax forms used to report farm income and expenses. In the second major section, the income tax provisions particularly or exclusively applicable to farming are presented. The opportunities and limitations for nonfarmers to shelter income in farming activities are then described. Finally, the impacts of pertinent income tax provisions and tax shelter investments by nonfarmers are examined with respect to farmland prices and ownership, capital/labor mix, farm size, management practices, and commodity supplies and prices.

NOTE.—Source material is cited by author and date; a full citation for each source is provided in the bibliography.

[1] Federal estate taxes also have some significant impacts on U.S. agriculture, but an examination of these impacts is beyond the scope of this study. For information on these impacts, see Boehlje (1981; 1982), Davenport, Boehlje, and Martin (1982), and Sisson (1979).

FARM ORGANIZATION AND TAX FORMS

Farming is a business. For income tax purposes a farm business can be organized as a sole proprietorship, a partnership, or a corporation. The type of farm business organization determines which tax forms must be used to report farm income and expenses.[2]

Sole Proprietorship

A sole proprietorship may be a single individual or a married couple (including minor children). A sole proprietor is liable for all obligations of the farm business, and makes the necessary management decisions. The quintessential example of a farm sole proprietorship would be a husband and wife as owner-operators of a farm. According to data from the 1982 *Census of Agriculture,* about 87 percent of all farms are organized as sole proprietorships.

Net farm income (or loss) for a sole proprietorship is generally determined on Schedule F (Farm Income and Expenses). This net income (or loss) is then transferred to the individual's (or family's) Form 1040 (Individual Income Tax Return).[3] [4] In a tenancy situation under a crop-share arrangement, two Schedule Fs are usually filed for the same farm. The tenant reports his or her share of income and expenses on one Schedule F (attached to his or her Form 1040) and a "materially participating" landlord also reports his or her farm income and expenses on another Schedule F (attached to his or her Form 1040). "Non-materially participating" landlords report their farm income and expenses on Form 4835 (Farm Rental Income and Expense and Summary of Gross Income from Farming or Fishing). The net income or loss on Form 4835 is then transferred to Schedule E (Supplemental Income Schedule) and, in turn, to the individual's Form 1040. In a tenancy situation involving cash rents, the landlord must use Form 4835 and Schedule E.

Partnership

Farm partnerships can be general, limited, or a combination of both. General partnerships involve at least two people who contribute assets to the partnership and share in the management deci-

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[2] For more information on the characteristics of the various types of farm organizations (sole proprietorships, partnerships, and corporations) and their tax consequences, see Boehlje and Krause (1981).

[3] There are a myriad of other supplemental forms that are often filed in addition to Schedule F and Form 1040, e.g., Schedule SE, which is used to figure social security self-employment taxes; Schedule D, which is used to report gains and losses from the sale of capital assets; Form 4562, which is used for depreciation and amortization deductions; and Form 3468, which is used to determine investment tax credits. These and several other commonly-used forms are discussed in U.S. Department of the Treasury, Internal Revenue Service. Farmer's Tax Guide. Publication 225. Washington, 1983. (Hereafter cited as Farmer's Tax Guide 1983).

[4] The basic steps involved in determining the Federal income tax liability of individuals are described in the appendix.

sions. Profits or losses are divided among the partners and each is liable for the obligations of the partnership. This organizational form is often used by adult brothers or a father and adult son (or son-in-law).[5] In contrast, a limited farm partnership usually involves unrelated individuals. These individuals contribute assets to the partnership but do not participate in management decisions. The liability of each limited partner is confined to the total value of assets contributed to the partnership. Many farm partnerships have several limited partners and one general partner, who makes the management decisions for the partnership. Limited partners in a farm partnership are usually nonfarmers who enter the partnership for investment purposes. About 10 percent of U.S. farms are organized as partnerships, according to the 1982 *Census of Agriculture.*

Partnerships with income or deductions are required to file a Form 1065 (Partnership Return), but partnerships pay no income tax. Form 1065 is only an informational return, showing the income and deductions of the partnership, the name and addresss of each partner, and each partner's share of the income and expenses. A Schedule F is filed with Form 1065 to show the partnership's profit (or loss) from farming activities. Each partner's share of income (or losses) is reported on his or her Schedule E. Similarly, each partner's share of: gains (or losses) from the sale of capital assets are recorded on Schedule D, depreciation and amortization deductions are recorded on Form 4562, and so on. The relevant values from these schedules and forms are recorded on each partner's Form 1040. Salaries paid to partners are also reported on this form.

Corporation

The third type of farm organization is a corporation. A corporation is owned by one or more individuals, partnerships, or other corporations. A corporation is a separate legal entity from its owners (known as shareholders). The liability of shareholders is usually limited to their personal investment in the corporation. A board of directors, elected by the shareholders, is responsible for the management of the corporation. The directors usually transfer the responsibility for daily operational activities to hired management personnel. In small corporations individual shareholders may have multiple roles. For example, one person may be a shareholder, a director, and the manager of a small farm corporation. Farm corporations comprised about two percent of U.S. farms in the 1982 *Census of Agriculture.*

The income and expenses of most corporations are reported on Form 1120 (U.S. Corporation Income Tax Return). As a distinct legal entity, a corporation pays taxes on net income based upon corporate tax rates. However, corporations having 35 or fewer shareholders and statisfying certain other requirements are taxed as partnerships. These small corporations, which are known as

[5] A husband and wife can also organize their farm businesses as a partnership, rather than as a sole proprietorship, provided that certain conditions are met (Farmer's Tax Guide, 1983, p. 5). However, most married farm couples file as a sole proprietorship, since there is no reason to separate the farm income and expenses if the couple files a joint tax return.

Subchapter S corporations, file a Form 1120S. Shareholders in these corporations must report their income, expenses, and capital gains (or losses) on their Form 1040, as just described for partnerships.

INCOME TAX PROVISIONS APPLICABLE TO FARMING

There are several Federal income tax provisions applicable to businesses that are particularly beneficial to agriculture. Additionally, there are some tax preferences that are exclusively available to agriculture. Both types of income tax provisions are described in this section. Specifically, the four most important of these provisions are presented: cash accounting, depreciation rules, investment tax credits, and capital gains treatment. Some other provisions (involving, for example, the treatment of soil and water conservation expenditures) are also discussed.

Cash Accounting

Businesses are generally required to use accrual accounting for income tax purposes. Under this accounting method, expenses resulting from the production of specific commodities are not deductible until the year those commodities are sold (see example 1).[6] Thus, accrual accounting results in a matching of the income from the sale of specific commodities with the expenses of producing those commodities. This matching of expenses and income requires precise records of expenses, production, inventories, and sales for each year.

Example 1. Reporting of income and expenses under accrual accounting.
Suppose a bicycle manufacturer purchases and pays for necessary parts for his production process in late 1983. Bicycles are made from these parts in 1984 and sold to a department store chain late that year. The department store chain does not get a check for these bicycles to the manufacturer until January 1985. In this case under accrual accounting, the bicycle manufacturer would have to report the income from the sale of the bicycles in 1984 even though he did not actually get the money for the bicycles until 1985. Similarly, the expenses for the parts for these bicycles would be deductible in 1984 (the year of sale) even though they were purchased and paid for in 1983.

Due to the difficulty and inconvenience of inventorying farm input expenses, farmers are allowed to use cash accounting, rather than accrual accounting.[7]

> Under cash accounting, income from the sale of goods is taxed in the year it is received in cash. Expenses are deducted from such income in the year they are paid. Inventories of unsold goods at year's end are ignored, and the costs related to such unsold goods are taken as deductions when the costs are paid rather than when the income is realized. (Davenport Boehlje, and Martin 1982, p. 6.)

Thus, income and expenses are often mismatched under a cash accounting approach. So it is possible that some expenses associated

[6] The income from the sale of these commodities must be reported in the year of the sale even if the receipts from this sale are not received until a later year.
[7] Some farm corporations must use accural accounting. See Farmer's Tax Guide (1983, p. 6.)

with the next year's production can be used to offset income resulting from a previous year's production.

This mismatching of income and expense can significantly affect farmers' tax burdens. To the extent that expenses can be shifted to high income years and/or income can be shifted to high expense years, aggregate tax liabilities can be lowered due to the progressive nature of income tax rates. The potential tax savings from such as shifting of expenses and/or income are illustrated in example 2.

Example 2. Shifting expenses under cash accounting to reduce the tax burden.

Suppose a farmer expects to sell $60,000 of grain this year and $40,000 of grain next year. If production costs are $28,000 this year and $28,000 next year, his or her profit would be $32,000 this year and $12,000 next year. With no itemized deductions or tax credits and two exemptions (husband and wife), taxable income would be $30,000 and $10,000, respectively. Based upon 1983 tax rates for married taxpayers filing a joint return (see appendix table 1), the total tax liability for these two years would be $5,928. Alternatively, if the the farmer could shift $10,000 of the second year's expenses into the first year (by prepaying some second-year production costs, for example), taxable income would become $20,000 for each year. This would lower the farmer's total tax liability for the two years to $5,212. The difference is a tax savings of $716 (12 percent).

Depreciation Rules

In general, operating expenses incurred by businesses are tax deductible as an offset to earned income. However, businesses cannot deduct the entire cost of assets such as machinery, equipment, and buildings that have useful lives exceeding one year. Only a part of the cost of this depreciable property can be deducted as a business expense each year.[8]

> Because such assets will contribute to the production of income over many years, it is appropriate to apportion capital expenditures as offsets to income over the entire period during which they can reasonably be regarded as contributing to the production of income, rather than deducting them in full from income in the year they are incurred. This apportionment is known as depreciation. (Davenport, Boehlje, and Martin 1982, p. 7.)

The current income tax laws allow sole proprietors, partnerships, and corporations to expense (deduct) up to $5,000 of expenditures on newly acquired depreciable property. The rules for depreciating the remaining costs of property purchased after 1980 are specified by the Accelerated Cost Recovery System (ACRS), which was enacted as part of Public Law 97-34—the Economic Recovery Tax Act (ERTA).[9] Under the ACRS depreciable property is classified into one of four recovery periods: 3 years, 5 years, 10 years, and 18 years. Examples of assets in each period include:

3 years: Automobiles, light-duty trucks, breeding hogs, and other short-lived personal property.

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[8] Depreciable property can be real or personal. Real property refers to land and any buildings or structures attached to the land, but land is not depreciable. Personal property is non-real estate property such as machinery.

[9] Property purchased in 1980 or earlier that has not been fully depreciated is depreciated under the rules in effect prior to the enactment of the ACRS. These depreciation rules are explained in Farmer's Tax Guide (1983, pp. 24-25).

5 years: Most farm machinery and equipment, breeding livestock (other than breeding hogs), farm storage facilities such as silos and grain bins, fences, water systems, and single-purpose agricultural and horticultural structures such as hog containment buildings, milking parlors, and greenhouses.

10 years: Mobile homes and depreciable real property with average useful lives less than or equal to 12.5 years.

18 years: Depreciable real property with average useful lives exceeding 12.5 years, such as farm buildings.[10]

These ACRS recovery periods are used to depreciate the cost of both new and used property. Most depreciable farm property is included in the 5-year recovery period.

The cost recovery percentages for 3-year, 5-year, and 10-year property under the ACRS are shown in table 1. These percentages apply regardless of the acquisition date in the first year. Example 3 illustrates the use of the cost recovery percentages for 5-year property under the ACRS. The cost recovery percentage in each year for 18-year property is determined using a complicated formula based upon what month the property was placed in service during the first year.

Example 3. Calculating the depreciation deduction using ACRS.

Suppose that a farmer buys a new tractor for $155,000. The farmer can expense $5,000 of that cost in the first year (exhausting his or her expensing deduction for that year). This would drop the depreciable value of this tractor to $150,000. As 5-year property under the ACRS, the allowable depreciation deduction for the first year would be $22,500 (15% of $150,000). Thus, a total of $27,500 can be deducted as a business expense in the first year of use. The depreciation deduction in the second year would be $33,000 (22% of $150,000). In the third, fourth, and fifth years $31,500 (21% of $150,000) would be depreciated.

At the taxpayer's discretion, longer recovery periods can be used for depreciable property.[11] Specifically,

a. 3-year property can be depreciated over 5 or 12 years,

b. 5-year property can be depreciated over 12 or 25 years,

c. 10-year property can be depreciated over 25 or 35 years, and

d. 18-year property can be depreciated over 35 or 45 years,

TABLE 1.—COST RECOVERY PERCENTAGES UNDER THE ACRS FOR VARIOUS PROPERTY CLASSES AND RECOVERY YEARS

[In percent]

Recovery year	Property Classes		
	3 year	5 year	10 year
1	25	15	8
2	38	22	14
3	37	21	12
4		21	10
5		21	10
6			10

[10] The recovery period for this category of property was 15 years under ERTA. The recovery period was extended to 18 years for property acquired after March 15, 1984 by the Deficit Reduction Act of 1984 (P.L. 98-369).

[11] This might be beneficial to farmers expecting low taxable income in the next few years and much higher taxable income in subsequent years, for example. In this case the farmer might want to "save" more depreciation deductions for the later years in order to minimize his or her aggregate tax liability.

TABLE 1.—COST RECOVERY PERCENTAGES UNDER THE ACRS FOR VARIOUS PROPERTY CLASSES AND RECOVERY YEARS—Continued

[In percent]

Recovery year	Property Classes		
	3 year	5 year	10 year
7			9
8			9
9			9
10			9
Total	100	100	100

Sources: Estes and Morissett (1982, p. 34).

In place of the percentages in table 1, a recovery percentage based on straight-line depreciation is used when these longer recovery periods are used.[12] Straight-line depreciation can also be used for the standard recovery periods, i.e., 3, 5, 10, and 18 years. The same method and recovery period must be used for property in the same recovery class that is placed in service in the same year. In other words, if three items classified as 5-year property are purchased in one year, all three items must be depreciated using the same method and recovery period. However, a different method and recovery period could be used for 3-year property that was purchased that year.

If a taxpayer sells 3-year, 5-year, or 10-year property prior to the end of the respective recovery period, no depreciation deduction is allowed for that property in the sale year. A depreciation deduction based upon months in use is allowed for 18-year property that is sold prior to the end of its recovery period. Depreciable property that is sold for more than its purchase price less aggregate depreciation deductions results in a recapture of some previous tax savings. This is briefly discussed below under Gains on the Sale of Farm Assets.

In conclusion, the recovery periods for most farm property are usually shorter than the useful lives of this property. In some cases the recovery period is much shorter than the useful life. For example, special-purpose agricultural and horticultural buildings, which are real property, are depreciated over just five years. This produces tax benefits for farmers to the extent that property costs are written off before the property stops contributing to farm income. Hence, these short recovery periods contribute to the mismatching of income and expenses, as discussed in the previous subsection.

Apart from the impacts of the ACRS, expenditures for the development of some farm assets can be fully deducted in the year they are incurred (Davenport, Boehlje, and Martin 1982, p. 7). Some examples of these deductible capital expenditures include:

a. certain costs for the development of orchards and vineyards (except citrus and almond groves),

[12] Straight-line depreciation involves using the same depreciation percentage for each year of the recovery period. For example, the straight-line depreciation percentage for property with a 5-year recovery period would be 20% (100%/5).

b. costs of fertilizer, lime, and other materials that condition or enrich the land for more than one year,

c. certain land clearing expenditures (including costs for removing tree stumps, leveling the land, and the diversion of streams), and

d. certain soil and water conservation expenditures (which are discussed in detail later).

These deductible capital expenditures further contribute to a mismatching of farm income and expenses.

Investment Tax Credit

Most depreciable farm property, whether purchased as new or used property, is eligible for an investment tax credit (ITC) in the acquisition year. Qualifying farm property includes: machinery; equipment; fences used in connection with raising livestock; water wells for livestock and irrigation; drain tiles; storage facilities; purchased livestock; and single-purpose agricultural and horticultural structures such as hog confinement buildings, milking parlors (excluding parts used for cooling or storing milk), and greenhouses (Farmer's Tax Guide 1983, pp. 26–27). Multiple or general purpose farm buildings such as barns, stables, and tool sheds do not qualify for the investment tax credit.

The ITC is 10 percent of the eligible cost of qualifying farm property.[13] The eligible cost of 3-year property (under the ACRS) is 60 percent of the purchase price (less the amount expensed). The eligible cost of other qualifying property is 100% of the purchase price (less the amount expensed). In other words, the ITC is 6 percent of the cost of 3-year property and 10 percent of the cost of other qualifying property (less amounts expensed in both cases).

As explained in the appendix, a tax credit directly reduces a taxpayer's income tax liability. The ITC claimed in any one year cannot exceed the lesser of $25,000 plus 85 percent of the tax liability in excess of $25,000 (for married persons filing a joint return), or the income tax liability. So the ITC cannot reduce income tax liability below $0. If the ITC exceeds these limits, the remainder can be carried backward up to three years and then forward up to 15 years, and applied to income tax liabilities in those years. The ITC also cannot be applied to more than $125,000 of used property acquired in any one year and with no carryover provisions.

Since most depreciable farm property also qualifies for the ITC, both a tax deduction and a tax credit can be taken for purchases of such property. To decrease this double benefit, either the tax deduction or the tax credit must be reduced. Specifically, either the ITC must be reduced by two percentage points (i.e., from 10% to 8%) while the depreciable cost of the property (known as its basis value) remains unchanged, or the full ITC can be taken but the

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[13] Only the investment amount that is at risk qualifies for the investment tax credit. To illustrate this at-risk limitation, consider the purchase of a tractor for $150,000. If the farmer contributes $50,000 of his or her own money and borrows the remaining purchase price using the tractor as collateral, only the farmer's $50,000 is considered to be at risk. Thus, the investment tax credit can only be applied to the $50,000, not the $150,000. At risk rules are examined in more detail later in this report.

basis value of the property must be reduced by half of the ITC (see example 4).

Example 4. Reducing the double benefit of depreciation and ITC.
Suppose that a farmer purchases a $175,000 greenhouse. Assume that $5,000 of this cost is expensed. This reduces the basis value of the greenhouse to $170,000. The farmer can have either an ITC of $13,600 (8% of $170,000) plus a depreciation deduction of $25,500 (15% of $170,000), or an ITC of $17,000 (10% of $170,000) plus a depreciation deduction of $24,225 (15% of ($170,000 – $8,500)).

If depreciable farm property is sold prior to the end of its ACRS recovery period and an ITC was taken for the purchase of this property, some of the ITC may have to be recaptured (repaid). The ITC that must be recaptured is calculated by multiplying a recapture percentage by the ITC originally taken. Recapture percentages for various types of property for various disposal years are shown in table 2. As indicated in this table, if 5-year property is sold in the third year of service, then 60 percent of the ITC originally taken for this property must be recaptured. If the taxpayer had excess ITCs in the year this property was purchased, he or she must refigure the impact of this recapture on the ITCs carried over to other tax years. Some examples of how this is done are given in the Farmer's Tax Guide (1983, pp. 31–32). If the ITC did not reduce the taxpayer's income tax liability in the year of purchase or some other year, then the recapture of the ITC is forgiven. If some recapture is required, the appropriate amount is added to the taxpayers' income tax liability in the year of disposition of the property.

TABLE 2.—INVESTMENT TAX CREDIT RECAPTURE RATES FOR VARIOUS TYPES OF PROPERTY IN SERVICE FOR VARIOUS YEARS, 1983

[In percent]

	Recapture percentage for:	
	3-year property	5-, 10, and 18-year property
Property sold within the:		
First full year	100	100
Second full year	66	80
Third full year	33	60
Fourth full year	0	40
Fifth full year	0	20
After fifth full year	0	0

Source: Farmer's Tax Guide (1983, p. 31).

Gains on the Sale of Farm Assets

Capital gains taxes.—In general, property that is owned and used for personal or business purposes or as an investment is a capital asset. Property held for sale in a business is not a capital asset for income tax purposes. If a capital asset is sold after being owned more than 6 months and the sale price is greater than (less than) the original purchase price, then a long-term capital gain (loss) has been realized.[14] For Federal income tax purposes, only 40 percent

[14] This 6-month holding period applies to property acquired after June 22, 1984. Property acquired prior to that date must be held at least 12 months.

of long-term capital gains are included in a taxpayer's gross income. Thus, long-term capital gains are taxed at a maximum rate of 20 percent, given a maximum marginal tax rate of 50 percent.[15] Within specified limits, long-term capital losses can offset other income. If a taxpayer has both long-term capital gains and long-term capital losses, only 40 percent of the excess of the gains over the losses are reported as gross income.

Generally, livestock, poultry, livestock products, and crops that are raised for sale are not considered capital assets for income tax purposes. Hence, income from the sale of these commodities is taxed as ordinary income. However, livestock that are raised and held for breeding purposes (i.e., to produce more livestock) are capital assets, if they are held for at least 12 months. Similarly, livestock held for at least 12 months for draft, dairy, and sporting purposes are also capital assets.[16] Hence, income from the sale of this kind of livestock receives preferential capital gains treatment.

In practice, it may not always be clear whether livestock are a capital asset or an ordinary asset. The Internal Revenue Service notes that it:

> . . . depends on all the facts and circumstances in each case. The purpose for which an animal is held ordinarily is shown by a farmer's actual use of the animal. An animal is not held for draft, breeding, dairy, or sporting purposes merely because it is suitable for that purpose, or because it is held for sale to other persons for use by them for that purpose. (Farmer's Tax Guide 1983, p. 35.)

Although the asset status of livestock is somewhat ambiguous, most other kinds of depreciable personal and real property used in a farm business and held for more than six months are clearly capital assets. Farmland is also considered a capital asset for income tax purposes. If these assets are sold at a price above their purchase price, the difference is taxable as capital gain income. However, as explained in the following subsection, gains from the sale of depreciable property that amount to a recapture of previous depreciation deductions are taxable as ordinary income.

Recapture provisions.—As depreciable property (including purchased livestock) is written off for income tax purposes, the amount depreciated is deducted from the basis (original cost) of the property. The remaining value is known as the adjusted basis of the property. If this property is sold at a price above the adjusted basis, part or all of the excess may be taxable as either ordinary income or capital gain. Different rules apply to personal and real property. For personal property, the excess of the sale price above the adjusted basis is taxable as ordinary income to the extent of aggregate depreciation deductions to the sale date (including any expensing deduction taken in the first year).[17] If the excess exceeds the aggre-

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[15] A marginal tax rate is the tax rate applied to the last dollar of taxable income. See appendix table 1 for the range of marginal tax rates applicable to the taxable income of married persons filing a joint return.

[16] Cattle and horses raised for draft, breeding, dairy, or sporting purposes must be held for 2 years or more to be considered capital assets.

[17] This rule also applies to property such as orchards, groves, vineyards, storage facilities, single-purpose agricultural and horticultural structures, and other depreciable tangible property playing an integral role in the production of agricultural commodities.

gate depreciation, the remainder is taxable as capital gain income. This process is illustrated in example 5.

Example 5. Recapture provisions and capital gains.

Suppose a farmer bought a silo (classified as tangible property) for $35,000 in 1981. The farmer expensed $3,000 of the cost and began depreciating the silo under the ACRS as 5-year property. For simplicity, it is assumed that no investment tax credit was claimed for this property. If the farmer sells the silo in 1983, then no depreciation deduction would be allowed for the silo in that year. The 1981 and 1982 depreciation deductions were $4,800 (15% of $32,000) and $7,040 (22% of $32,000), respectively. Thus, in 1983 the adjusted basis of the silo was $20,160 ($32,000 − $4,800 − $7,040). Assuming the silo was sold for $26,000, the gain for income tax purposes would be $5,840 ($26,000 − $20,160). Since the gain is less than the aggregate depreciation deduction (including the amount expensed) of $14,840 ($3,000 + $4,800 + $7,040), the entire gain would be taxable as ordinary income. If the silo had been sold for $40,000, the gain would have been $19,840. Of this amount, $14,840 would have been taxable as ordinary income and $5,000 would have been taxable as capital gain income.

Recapture provisions are quite different for sales of depreciable real property such as buildings and their structural components (i.e., wiring and plumbing).[18] A gain on the sale of this property is taxed as ordinary income only to the extent that aggregate depreciation deductions taken for this property exceed the depreciation deductions that would have been allowable under the straight-line method. In other words, depreciation deductions in excess of straight-line depreciation are recaptured and taxed as ordinary income. Any remaining gain is taxed as capital gain income.

Conclusion.—Recapture provisions notwithstanding, the main point is that "farmers can arrange to have a large portion of receipts from the sale of livestock treated as capital gain rather than as ordinary income" (Davenport, Boehlje, and Martin 1982, p.7). Due to the preferential tax treatment given capital gain income, this can result in substantial tax benefits.

Other Provisions

Soil and water conservation and land clearing expenditures.—As noted earlier, certain capital expenditures for soil and water conservation and land clearing are deductible subject to some limitations. These deductible expenditures include (but are not limited to): the treatment or movement of earth, the diversion of streams and other watercourses, the eradication of brush, trees, etc., and the planting of windbreaks.[19] If expenditures for these activities are not deducted, they must be capitalized, i.e., added to the basis value of the farmland. Expenditures for depreciable soil and water conservation assets (such as water wells and concrete dams) must be capitalized. Investments in these assets are then recovered through annual depreciation allowances.[20]

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[18] Gains from the sale of certain kinds of depreciable 18-year real property are handled under different rules. See Farmer's Tax Guide (1983, p. 37).

[19] In some cases, soil and water conservation expenditures are made by a soil and water conservation or drainage district, which then recovers these expenditures through charges levied against the farmers benefited. Farmers may deduct the portion of these charges that they would have been able to deduct if they had paid for them directly. However, special rules apply to charges for depreciable property, such as pumps, concrete structures, and similar equipment. See Farmer's Tax Guide (1983, pp. 45–46).

[20] Federal or State cost-sharing payments for certain depreciable soil and water conservation assets do not have to be reported as income on a farmer's tax return. However, if these payments are not reported, they must be deducted from the basis value of the property. Further-

In any single tax year, the deduction for soil and water conservation expenditures is limited to 25 percent of gross farm income. In this case gross farm income includes income from the sale of agricultural products and livestock, including gains from the sale of livestock held for draft, breeding, dairy, or sporting purposes. Gains from the sale of other depreciable assets (such as farm machinery) and land are not included. If eligible expenditures exceed 25 percent of gross farm income, the excess may be deducted in succeeding tax years (subject to the 25 percent limit in those years). Necessary expenses for maintaining soil and water conservation structures (such as removing sediment from drainage ditches) are deductible as ordinary farm expenses not subject to this 25 percent limitation. The same is true of expenses for interest and taxes on these structures.

Different limitations apply to land clearing expenditures. Deductions for these expenditures cannot be more than $5,000 or 25 percent of taxable farm income, whichever is less. The balance of land clearing expenditures must be capitalized. Taxable farm income is defined as gross farm income (as defined in the previous paragraph) less allowable farm business expenses (excluding land clearing expenditures).

If farmland is sold at a gain after having been held less than 10 years and deductions were taken on this farmland for soil and water conservation or land clearing expenditures, then part of the gain is treated as ordinary income. Specifically, that amount is the lesser of the entire gain, or the total of the deductions previously taken multiplied by a certain percentage based upon the number of years that the land was held. The applicable percentage is 100 percent if the land was held five years of less. The applicable percentage is reduced 20 percentage points per year for each year the land is held beyond five years (see example 6).[21]

Example 6. Taxing farmland gains as ordinary income due to conservation expenditures.

Suppose that a farmer holds a particular parcel of farmland for eight years, and then sells it for a gain of $30,000. Also assume that the farmer had deducted $15,000 of soil and water conservation expenditures sometime during the eight years. The applicable percentage for calculating the part of the gain that would have to be reported as ordinary income would be 40 percent. Consequently, $6,000 of the gain (40% of $15,000) would be considered ordinary income, and $24,000 ($30,000 – $6,000) would be capital gain income.

Installment sales. Installment sales of property occur when part of the proceeds from a sale are paid in a later year. In this situa-

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more, an investment tax credit cannot be taken for the portion of the expenditures covered by cost-sharing payments, nor can that portion of the expenditures be depreciated (Farmer's Tax Guide 1983, p.9). To illustrate, suppose a farmer spends $40,000 for a small concrete dam, and receives $15,000 from the Federal Government as a cost-share for this dam. If the farmer chooses to exclude this $15,000 as income, then it must be deducted from the cost of the dam. Consequently, the basis of the dam would be reduced to $25,000. An investment tax credit and depreciation would be based on this amount.

[21] If cost-sharing payments have been excluded from income and a gain is realized on the sale of the farmland, then some of the gain may have to be reported as ordinary income. The amount treated as ordinary income is the lesser of the entire gain, or the total cost-sharing payments multiplied by a certain percentage based on the number of years the property was held since the payments were received. If this time period is less than 10 years, the applicable percentage is 100%. For each year beyond 10 years, the applicable percentage declines 10 percent per year. These provisions only apply to a gain that is not taxed as ordinary income under any other tax provisions (Farmer's Tax Guide 1983, p. 38).

tion payments are only reported when received. Thus, installment property sales allow a taxpayer to defer recognition of income from a sale, which means that taxes on this income will also be delayed. Of course, such a deferral of income entails the loss of present use of the income, but interest is typically paid on the deferred payments. This interest is taxed as ordinary income. For sales after June 6, 1984, the part of any gain due to depreciation deductions in earlier years must be reported as ordinary income in the year of the sale.[22]

Installment sale income must be determined separately each year based on payments received that year. This income is reported on Form 6252 (Computation of Installment Sale Income), which is attached to the individual's tax return. Each payment is treated as part recovery of the investment, which is not taxed, and part profit, which is taxed. Specifically,

> A certain percentage of each payment (after subtracting out interest) must be reported as gain from the sale. This percentage usually remains the same for each payment you receive. It is called the "gross profit percentage," and is figured by dividing your gross profit from the sale by the contract price. (Farmer's Tax Guide 1983, p. 38.)

Gross profit is defined as the selling price of the property,[23] minus its adjusted basis, minus the amount of the property's purchase price that was expensed, and minus the depreciation recapture income for sales after June 6, 1984. The contract price is simply the total amount of principal payments to be received on the installment sale. In many cases the selling price and contract price are identical.

All sales of real property (e.g., land, barns, and water wells) are eligible for installment sale reporting. The advantages of installment sale reporting are not available for sales of personal property (i.e., property that is not real estate) that must be inventoried for income tax purposes. However, farmers who rely on cash accounting can use the installment method for sales of personal property. Consequently, farmers have an opportunity to defer income that is not available to other independent business persons. Installment sales reporting can be particularly beneficial in helping farmers defer income in years when they face relatively high marginal tax rates due to a high level of sales.

Employment taxes.—People who run their own business are generally considered to be self employed, and must pay self-employment taxes if their net earnings from self employment are at least $400. Self-employment taxes cover social security and hospital insurance (Medicare). The maximum amount of net earnings subject

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[22] If the installment sale agreement provides for a low interest rate or makes no provision for interest payments, then an "unstated" interest rate must be imputed. Imputed interest increases the seller's interest income and increases the buyer's deductible interest expense. The conditions under which interest must be imputed and the resulting "unstated" interest rate are given in Farmer's Tax Guide (1983, p. 40), however, significant changes have been made in these provisions by the Deficit Reduction Act of 1984 (P.L. 98–369).

[23] The selling price includes money, the fair market value of property received, debts paid by the buyer, selling expenses paid by the buyer, and other types of compensation. The valuation of non-money payments is discussed in Farmer's Tax Guide (1983, pp. 39–40).

to self-employment taxes in 1983 was $35,700. Since farming is business, farmers have to pay self-employment taxes.

Self-employment taxes are determined on a separate schedule (Schedule SE) and then are transferred to a farmer's Form 1040. Three steps are involved in calculating self-employment taxes. First, net earnings from self-employment must be determined using one of three available methods.[24] Second, the portion of net earnings subject to self-employment taxes must be determined. Specifically, wages received from other employment will have had deductions made for social security. Thus, only self-employment net earnings up to $35,700 less wages from nonfarm employment would be subject to self-employment taxes. Finally, a tax rate (currently 9.35 percent) is applied to the relevant portion of self-employment net earnings to arrive at the self-employment tax liability.

In addition to self-employment taxes, many farmers who have agricultural employees must pay employer-employee taxes. These taxes include social security taxes (FICA) and Federal unemployment taxes (FUTA). FICA taxes must be paid by a farmer-employer if one or more employees receive cash wages of $150 or more, or if cash wages are paid on a time basis to an employee who worked 20 or more days for the farmer.[25] If one of these tests is met, a farmer must withhold 6.7 percent of the cash wages paid to each employee, and contribute an equal amount as the employer's share. These taxes are paid to the Internal Revenue Service. Various deposit rules, timetables, and penalties apply depending upon the amount of taxes owed and the length of payperiods (Farmer's Tax Guide 1983, p, 51).

The FUTA tax is imposed on a farmer-employer who pays cash wages of $20,000 or more in any 3-month period during the current or preceding year, or employs at least 10 farmworkers for at least part of any one day during each of 20 weeks during the current or preceding year.[26] The FUTA tax rate is 3.5 percent of the first $7,000 of cash wages paid to each employee in the calendar year.[27] This tax cannot be deducted or collected from the wages of employees. As with self-employment taxes, specific depositing rules must be followed for FUTA taxes (Farmer's Tax Guide 1983, p. 51).

Fuel tax credit.—There is currently a 9-cent-a-gallon Federal excise tax on gasoline and special motor fuels used in a motor vehicle,[28] and a 15-cent-a-gallon excise tax (as of August 1, 1984) on diesel fuel used in a highway vehicle. Farmers can get a tax credit for the payment of this excise tax on these fuels if they are used for farming purposes.[29] A farmer can also get a credit on the fuels

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[24] These three methods are the regular method, the farm optional method, and the nonfarm optional method. These methods differ in the kinds of income and deductions excluded, the minimum and maximum income limits, and applicable tax rates. In general, the two optional methods permit continued coverage when net earning are low or negative. These three methods are explained in Farmer's Tax Guide (1983, pp. 47-49).

[25] Generally, children under the age of 21 and spouses are exempted.

[26] Minor children, spouses, and parents are not counted in either test.

[27] Credits up to 2.7 percent of wages paid may be received for unemployment taxes paid to a State. Consequently, the net Federal liability may be as low as 0.8 percent (Farmer's Tax Guide 1983, p. 51).

[28] No Federal excise tax is payable on special motor fuels used in farm machinery, farm tractors, bulldozers, etc.

[29] A fuel tax credit is also available for the sale or use of alcohol as a fuel for farming purposes (Farmer's Tax Guide 1983, p. 53). Since the use of gasohol and other alcohol-mixture fuels is not very widespread, the applicable fuel tax credit is not discussed.

used on his or her farm by a neighbor or a custom operator who provides farm services. Fuel tax credits are determined on a separate form (Form 4136) and then entered on Form 1040 as a payment. That is, Federal excise tax payments made during the year are treated similarly to income tax withholding payments. To the extent that these payments exceed tax liability, the excess is refunded to the farmer.

Three related points must be noted. First, fuel tax credits must be included as gross income in the year received, if these fuel taxes were deducted as a business expense in a previous tax year. For example, if $40 in gasoline excise taxes were deducted on Schedule F as part of the cost of gasoline used in the farm business, a subsequent $40 credit taken for these excise taxes would have to be reported as gross income in the year received. Second, diesel and special motor fuels may be purchased tax free if delivered into storage tanks on the farm. In this case no deduction or credit for excise taxes on these fuels is taken. Finally, since higher excise taxes are levied on fuels used in aircraft, higher tax credits are available for aircraft fuels used for farming purposes, such as cropdusting (Farmer's Tax Guide 1983, pp. 52–53).

Involuntary exchanges.—Losses of property due to a casualty or theft and sales of property precipitated by drought or disease are known as involuntary exchanges for income tax purposes.[30] Certain casualty or theft losses associated with property used in farming are tax deductible. For example, losses of livestock purchased for sale and losses of property used in farming (e.g., the loss of a barn due to fire) are deductible. However, losses of raised livestock and crops are not deductible, because the costs of raising the livestock and growing the crops are deductible and this property has no cost or basis for income tax purposes.[31]

The casualty loss for partially destroyed farm business property is limited to the lesser of the decrease in the value of the property or the property's adjusted basis. The latter value is used as the measure of loss for completely destroyed or stolen property. In either case, the loss must be reduced by insurance or other compensation received (or to be received). Additionally, the basis of property damaged or destroyed by a casualty must be reduced by the amount of this compensation *plus* the amount taken as an income tax deduction.[32]

Drought sales of livestock held for draft, breeding, or dairy purposes are considered an involuntary exchange.[33] If the net proceeds from these involuntary exchanges exceed the adjusted basis of the qualifying livestock, a farmer can postpone reporting this gain if he or she uses the gain to acquire similar replacement livestock

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[30] Involuntary exchanges due to condemnation are not discussed due to their infrequence. The treatment of gains from such involuntary exchanges is explained in Farmer's Tax Guide (1983, pp. 43–44).

[31] This would not be the case if the farmer uses the accrual accounting method. Since the use of accrual accounting is so limited, the treatment of involuntary exchanges under this method is not discussed (Farmer's Tax Guide 1983, pp. 41–44).

[32] The property's basis is increased by expenditures for rebuilding purposes.

[33] Drought sales of other livestock are not considered involuntary exchanges. Nevertheless, farmers may postpone reporting the proceeds from these sales for one year under certain conditions (Farmer's Tax Guide 1983, p. 8).

within two years.[34] Specifically, the gain is postponed until incorporated in the gain resulting from the sale of the replacement livestock. This postponement only applies to gains from the sale of livestock that would not normally have been sold in the absence of a drought.

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[34] This postponement is also available for insurance proceeds from a standing crop that is destroyed by a storm or other casualty, if these proceeds are used to purchase another standing crop or a harvested crop (Farmer's Tax Guide 1985, p. 43).

OPPORTUNITIES FOR NONFARMERS TO SHELTER INCOME IN FARMING ACTIVITIES

For income tax purposes, an individual, partnership, or corporation is a *farmer* or is *engaged in the business of farming*, if the entity cultivates, operates, or manages a *farm* with the intent to make a profit, either as an owner, landlord,[35] or tenant (Farmer's Tax Guide 1983, p. 17). The term farm refers broadly to any area where virtually any kind of food or fiber crop is raised (except timber). Included are livestock, dairy, poultry, fish, fruit, and truck farms, plantations, ranches, orchards, and horticultural nurseries. A farmer does not have to live on a farm, nor depend upon farming as a livelihood to any degree.

In summary, a wide variety of taxpayers qualify as farmers for income tax purposes. For example, a stockbroker in New York City who is a limited partner in a dairy farm in New Mexico is a farmer. Similarly, a physician in Seattle who rents farmland in Iowa to a local farmer on a crop-share basis is also a farmer. These and other nonfarm individuals can utilize all of the special farm tax provisions discussed in the previous section. In other words, the tax benefits available to farm operators are also available to nonfarm investors who qualify as farmers for income tax purposes. Thus, farming can be used as a tax shelter by nonfarmers.

Farming as a Tax Shelter

In general, a tax shelter is an investment that allows taxpayers to reduce or even eliminate tax liabilities on relatively large incomes by utilizing preferential income tax provisions. Ideally, a tax shelter contains two basic elements:

> large current deductions for depreciation and interest on borrowed money, and deferral of inclusion of receipts in taxable income with possible capital gains treatment for such receipts when the investment is terminated. (Pechman 1983, p. 124.)

This combination of elements generally leads to a lower tax liability than would have occurred without the tax-shelter investment.[36] Furthermore, tax shelters usually produce more tax benefits for high-income taxpayers than low-income taxpayers, other things being equal, due to the progressive nature of marginal tax rates.

Farming is one of several economic activities subject to preferential income tax provisions that are necessary for a tax shelter. In

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[35] Landlords receiving a fixed rent that is not based on production are engaged in farming only if they "materially participate" in the operation or management of the farm (Farmer's Tax Guide 1983, p. 17).

[36] More precisely, tax liabilities are lowered to the extent that deductions are claimed against income taxed at the highest rates while income is delayed or reported in a way that subjects it to the lowest possible tax rates.

particular, four income tax provisions significantly enhance the value of farming as a tax shelter:

1. the availability of cash accounting,
2. many capital expenditures are deductible as incurred,
3. cost recovery periods for many farm assets are much shorter than their economic lives, and
4. receipts from the sale of many farm assets are treated as capital gain income even though these assets were developed through deductible costs.

In the aggregate, these rules provide both of the basic elements necessary for a tax shelter. Consequently, many nonfarm taxpayers have invested in farming activities in an effort to reduce their tax liability on their nonfarm income.[37]

Nonfarm taxpayers generally obtain tax-shelter benefits from farming activities by purchasing (and sometimes improving) farm property, and then renting or leasing this property to a farmer. The rent or lease payments can be used to cover the investor's portion (if any) of production expenses, property taxes, and loan payments on borrowed capital. Additionally, these expenses are tax deductible. Furthermore, investment tax credits and deductions for depreciation may be taken on the investor's farm property. Eventually this property is sold, often with all or a portion of the proceeds treated as capital gain income.

As an alternative to renting or leasing their property to a farmer, some nonfarm investors hire a farmer to manage their property. To illustrate this process, consider an investment in beef cattle breeding. The first step for a nonfarm investor involves purchasing a breeding herd, often through a limited partnership or Subchapter S corporation. Then the partnership or corporation hires a farm manager to actually run the breeding operation. The 10 percent investment tax credit and the $5,000 expensing option are available to the nonfarm investors for the cost of the breeding herd. Furthermore, the cattle can be depreciated under the ACRS as 5-year property. Annual tax-deductible outlays are made for the salary of the farm manager and for feed, breeding fees, insurance, veterinary services, land rents, and interest on borrowed capital (if any). These expenses are at least partially offset by sales of yearling steers, producing ordinary taxable income. Heifers are retained to increase herd size and are bred at about two years of age. Culled heifers can be sold, generally producing capital gain income on the proceeds in excess of the depreciation recapture. Once a large portion of available deductions have been taken, the entire herd can be sold. Part of the proceeds will be taxed as ordinary income and part as capital gain income.

Specific Limitations Relating to Tax-Loss Farming

Several specific rules or limitations are applicable to tax-loss farming. These include: rules with respect to a net operating loss,

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[37] It should be remembered that the income tax provisions that make farming an attractive tax shelter for nonfarmers also serve to reduce the tax liability of farmers. A tax shelter provides tax benefits to high-income taxpayers, regardless of whether that income comes from farm or nonfarm sources.

at-risk rules, rules for farming syndicates, and the alternative minimum tax. Each of these are discussed below.

Net operating loss.—As noted earlier, tax losses from farming activities can be used to offset other, unrelated income. If tax losses from farming exceed the total amount of other income, a (farm or nonfarm) taxpayer may have a net operating loss (NOL).

> An NOL can be used to offset income in other tax years. It can be carried back 3 years or carried forward up to 15 years.[38]

If an NOL is carried back, the tax liability for the pertinent years must be refigured. If this reduces tax liability below what was paid in those years, the taxpayer gets a refund.

In summary, tax losses from farming can reduce tax liabilities in other years beside the year of the loss, if these losses result in an NOL. However, there are special rules that limit what can be deducted in determining an NOL.

> In general, these rules do not allow net capital losses, nonbusiness losses, or nonbusiness deductions to produce an NOL. However, a wide variety of deductions. . . . are considered to be "business" rather than "nonbusiness" deductions. (IRS Pub. 536 1983, p. 1.)

In other words, some items that are deductible in figuring taxable income are not deductible in figuring an NOL. Examples of these non-deductible items for an NOL include: personal exemptions, NOL carryovers from other years, the 60 percent capital gains exclusion, nonbusiness capital losses in excess of nonbusiness capital gains, nonbusiness deductions (such as medical expenses and charitable contributions) in excess of nonbusiness income (such as dividends and interest on investments), and some business capital losses. So, a negative taxable income does not necessarily produce an NOL; certain modifications must be made in taxable income to determine if there is an NOL. Examples of how to figure and use an NOL are given in IRS Pub. 536 (1983).

At-risk rules.—There are rules that limit the amount of loss from a business activity (i.e., the excess of allowable deductions over income received from the activity) that can be deducted when figuring taxable income to the amount the taxpayer has at risk in the activity. Generally, the at-risk amount is the amount of money and property contributed by the taxpayer to the activity, plus certain amounts borrowed for the activity. Regarding the latter amounts, the taxpayer must be personally liable for the amount borrowed or the borrowed amount must be secured with property that is not used in the activity.[39] In other words, taxpayers are not considered to have at risk any borrowed amount that is secured by property used in the activity.

If a taxpayer experiences a loss from a business activity in a particular year, then the taxpayer's at-risk amount for succeeding tax

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[38] U.S. Department of the Treasury. Internal Revenue Service. Net Operating Losses and the At-Risk Limits. Publication 536. Washington [1983] p. 1 (Hereafter cited as IRS Pub. 536 1983).

[39] Even if this is the case, the amount borrowed is not considered to be at risk if the lender has an interest in the activity (other than as a creditor) or if the lender is a relative. These and other limitations are explained in more detail in IRS Pub. 536 (1983. pp. 6–10).

years is reduced by the amount of loss that year. Subsequent losses further reduce the at-risk amount (but not below zero).[40] If a taxpayer's loss is greater than the at-risk amount, the excess can be treated as a deduction for the activity in the following year. Once the at-risk amount reaches $0, future losses can only be claimed in the year incurred to the extent that the taxpayer increases the amount at risk (e.g., by putting more equity capital into the activity). In summary, the at-risk rules essentially limit losses over the life of a business activity to the amount of capital the taxpayer has at risk in the activity.

Example 7. At-risk limit on tax losses.

Suppose a taxpayer invests $200,000 in a livestock breeding partnership. The investor contributes $50,000 of his own capital and borrows the remaining amount using his interest in the livestock as collateral. In this case the taxpayer has only the $50,000 at risk for income tax purposes. Consequently, tax losses cannot be claimed in excess of $50,000.

If this investor had a loss of $20,000 in the first year of the activity, the at-risk amount would fall to $30,000 ($50,000 – $20,000). Subsequent losses of $17,000 and $11,000 would further reduce the at-risk amount to $13,000 ($30,000 – $17,000) and $2,000 ($13,000 – $11,000), respectively.

Farming syndicates.—Special limits on deductions are applicable to farming syndicates. A farming syndicate is a subchapter S corporation, a partnership, or other noncorporate enterprise engaged in farming where either:

a. interests in the partnership or enterprise were sold in an offering that had to be registered with a State or Federal agency, or

b. more than 35 percent of the losses during any period were allocated to limited partners or limited entrepreneurs. (IRS Pub. 536 1983, p. 10).

A limited entrepreneur has an interest in the enterprise (other than as a limited partner) but does not actively participate in its management. Farmers, certain relatives of farmers, people who live on the farm where the farming activity occurs, and people who are actively involved in the management of the farm are exempted from these limits, even though they would otherwise qualify as limited partners or limited entrepreneurs.

The specific limits on farming syndicate deductions vary depending upon the farming activity. For example, farming syndicate deductions for feed, seed, fertilizer, and similar farm supplies are limited to the amount of these items actually used or consumed in the tax year. In contrast, farmers using the cash accounting method can deduct advance payments for such supplies to be used or consumed in a later tax year under certain conditions (Farmers Tax Guide 1983, p. 12).[41] The cost of poultry purchased by a farming syndicate for use (e.g. egg-laying hens and baby chicks) must be capitalized and deducted proportionately over the lesser of 12 months or their useful life in the business. Alternatively, the cost

[40] It is possible for the at-risk amount to fall below $0 if the taxpayer, for example, withdraws an amount of equity capital from the activity in excess of the at-risk amount at that time. If this occurs, part or all of the negative at-risk amount must be added to gross income in that year. The amount added to gross income is then treated as a deduction in the next tax year (IRS Pub. 536 1983, p. 10).

[41] The Deficit Reduction Act of 1984 (P.L. 98-369) has placed new limits on these deductions. Specifically, farmers whose major purpose is tax avoidance can only deduct prepayments for feed and similar supplies that will be used within the first 90 days of the following tax year.

of poultry purchased for resale must be deducted in the tax year in which the poultry is sold. Finally, a farming syndicate engaged in planting, cultivating, maintaining, or developing an orchard or vineyard must capitalize and recover, by depreciation, the costs incurred prior to the first commercial yield that would otherwise be deductible. In summary, farming syndicates are prohibited from taking certain deductions that are available to non-syndicate farming activities.

Alternative minimum tax.—As discussed previously, certain types of income and expenses receive preferential income tax treatment. These "tax preference items" can reduce an individual's tax liability to very low amounts. In order that these individuals pay at least a minimum amount of tax, there is an *alternative minimum tax*. This tax equals the difference between an individual's *regular tax* and *gross alternative minimum tax*. The latter figure is 20% of the difference between *alternative minimum taxable income* and an exemption amount based on the taxpayer's filing status. Alternative minimum taxable income is calculated by making certain additions to and subtractions from adjusted gross income (taking into account any NOL carryover).[42] The resulting alternative minimum taxable income is then reduced by $40,000 for married persons filing a joint return and qualifying widows, $30,000 for single persons and heads of households, or $20,000 for married persons filing separately.

An individual's regular tax is his or her income tax liability based on taxable income, less allowable tax credits, plus any tax from the recapture of previous investment tax credits. This amount is subtracted from the gross alternative minimum tax to produce the alternative minimum tax. This tax is entered on an individual's Form 1040 as an "other" tax, similar to the self-employment tax.[43] In summary, the alternative minimum tax is designed to ensure that individuals who take advantage of preferential tax provisions pay at least some taxes on their gross income. Consequently, nonfarmers who are involved in farming as a tax shelter may be subject to the alternative minimum tax.

Summary and Conclusions

For income tax purposes a wide variety of taxpayers are considered to be farmers. Consequently, the tax benefits available to operating farmers are also available to nonfarm investors who qualify as farmers under Federal income tax laws. These nonfarm investors can utilize their farming tax loss to reduce their tax liability on income from other sources. In other words, they can use farming as a tax shelter.

A good tax shelter usually provides large current deductions and the deferral and/or capital gain treatment of taxable income. Sev-

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[42] The additions include the following "tax preference items:" the $100 dividend exclusion ($200 for a joint return); accelerated depreciation on real property in excess of straight-line depreciation; accelerated depreciation on leased property in excess of straight-line depreciation; the untaxed part of net long-term capital gains; and several other costs (Farmer's Tax Guide 1983, pp. 44-45). The subtractions include certain itemized deductions, such as casualty losses, charitable contributions, and home mortgage interest.

[43] A detailed example of the mechanics of figuring the alternative minimum tax is provided in Farmer's Tax Guide (1983, p. 47).

eral limitations have been placed on tax sheltering activities through special rules regarding net operating losses, at-risk limits on losses, limits on deductions for farming syndicates, and the alternative minimum tax. Nevertheless, many farming activities are still good tax shelters for nonfarm investors. For example, almost all types of livestock activities, e.g., cattle breeding, cattle feeding, hog production, horse breeding, sheep production, and dairying, are good tax shelters. The preferential tax provisions that are available for these activities include: the 10 percent investment tax credit, depreciation deductions, deductions for production expenses, deductions for interest on borrowed capital, and the $5,000 expensing option. Special-purpose buildings for these livestock are depreciable over just five years. Furthermore, receipts from the sale of livestock used for breeding, draft, sport, or dairying purposes are treated as capital gain income, if the livestock were held for the appropriate period of time.

Another tax-favored agricultural activity involves orchards, vineyards and groves (except citrus and almond groves). With these activities a wide variety of land clearing, planting, developmental, and cultural practice expenditures are tax deductible during the years before newly planted trees reach their productive stage.[44] By the time that the trees or vines reach the income-producing stage, the property is usually much more valuable than the original purchase price. Consequently, the sale of this property would typically result in significant, capital gain income. As an alternative to developing such property, investors can realize substantial tax benefits from the acquisition of already producing orchards, vineyards, or groves.

> A significant portion of the property cost should be allocated to producing trees and vines that can be depreciated beginning in the year of acquisition if they are producing in commercial quantities. With investments of this type, the investor also benefits from the investment tax credit and from appreciation in the underlying land value. (Black and Sklar 1982, p. 203.)

Relative to these and some other agricultural activities, the production of row and vegetable crops does not provide as many tax-shelter opportunities. In particular, investment tax credits and depreciation deductions are not as common since the involvement of nonfarm investors is often limited to the ownership of farmland, which is rented to a local farmer. In these situations the tenant will usually own the farm machinery and equipment used in the production process. Furthermore, receipts from sale of crops are taxed as ordinary income and are usually deferred only one year. Of course, nonfarm landlords are typically responsible for a portion of annual production costs, which are tax deductible. Soil and water conservation expenditures are also tax deductible. Additionally, the use of cash accounting and installment sales provides some opportunity for minimizing income tax liability. And finally, any appreciation in farmland values is treated as capital gain

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[44] As noted earlier, these expenditures must be capitalized and then depreciated for citrus and almond groves.

income when the farmland is sold. In conclusion, even though row and vegetable crop production may not be as tax-favored as livestock activities, for example, it still provides some tax-shelter opportunities for nonfarm investors.

IMPACT OF INCOME TAX PROVISIONS ON AGRICULTURE

Income taxes and many other factors affect the profitability of farming. These other factors include crop prices, crop yields, input costs, harvesting and marketing costs, and governmental price support programs. Income taxes affect the returns from selling farm commodities and the relative cost of various inputs. In particular, the income from the sale of certain farm products (e.g., wheat) is taxed as ordinary income, while the sale proceeds from other farm commodities (e.g., dairy cattle) are subject to preferential treatment as capital gain income. Similarly, ACRS depreciation rules and investment tax credits differentially affect the cost of some farm inputs. Consequently, tax policies have an influence on farm production patterns, management practices, farm sizes, and other aspects of farm production. To the extent that farming is more or less tax-favored than nonfarm business endeavors, tax laws can also influence the flow of capital into farming relative to nonfarm industries. In summary, tax laws have a potentially significant impact on the "structure" of agriculture.

Unfortunately, it is very difficult to ascertain the relative importance of income taxes versus the other factors that affect the profitability of farming. Thus, it is not possible to accurately quantify the impacts of income tax policies. Nevertheless, there seems to be a consensus regarding the *direction* of these impacts. In other words, economists tend to agree on whether income tax policies have had a positive or negative impact on various aspects of the structure of agriculture. The structural aspects discussed below include: farmland prices and ownership, capital/labor mix, farm size, management practices, and commodity supplies and prices.

Farmland Prices and Ownership

Several Federal income tax provisions, taken as a group, have contributed to higher farmland prices. Specifically, these provisions are the deductibility of interest payments on loans for purchasing farmland, the exclusion of annual increases in the land's value from taxation, the deductibility of property taxes, and the preferential capital gain treatment of the proceeds from the sale of farmland. Davenport, Boehlje, and Martin (1982) have demonstrated that these tax provisions are particularly beneficial for highly leveraged purchases [45] by taxpayers in high tax brackets.

> High-bracket taxpayers are able to outbid those in lower tax brackets when the appreciation rate is high and the annual cash returns are low, as has been the case in recent inflationary times. Furthermore, high-bracket tax-

[45] Highly leveraged purchases are purchases made primarily with debt capital. In other words, the taxpayer borrows most of the money used to make the purchase.

> payers prefer capital gain or exempt income to ordinary income and are willing to accept low cash rates of return as long as such low rates are accompanied by high rates of appreciation. (Davenport, Boehlje, and Martin 1982, p. 18.)

Many nonfarm investors and established farmers are high-bracket taxpayers. Thus, the tax provisions just noted tend to help established farmers and nonfarm investors outbid beginning farmers in the farmland market. In other words, Federal income tax policies make it more difficult for beginning farmers, who are generally more interested in cash flow than appreciation (at least in the short run), to purchase farmland. In conclusion, tax policies have exerted upward pressure on farmland prices and have tended to concentrate farmland ownership with high-income farmers and nonfarmers.

In addition to the tax provision just mentioned, the deductibility of some capital expenditures for land improvement has also contributed to higher farmland prices. Specifically, soil and water conservation expenditures and land clearing expenditures generally enhance the productivity of farmland. This usually results in greater profitability, which is capitalized into higher land values. By allowing landowners to deduct these capital expenditures, the Federal Government is, in effect, lowering the cost of land improvements, which leads to higher land values.

Capital/Labor mix

As explained previously, the Federal tax system imposes two taxes on the wages of farm laborers, i.e., Social Security taxes and unemployment insurance. These taxes effectively increase the cost of labor inputs to the extent that these taxes cannot be passed through to the employees (via lower wages) or the buyers of the farm products (via higher commodity prices).[46] Apart from potential financial burdens, these taxes may require the farmer to maintain fairly elaborate records of wages earned, taxes paid, etc. that would not otherwise be kept. This would entail additional costs for the farmer.

In contrast to the taxes imposed on the wages of laborers, Federal tax policy reduces the cost of capital investment through accelerated depreciation and investment tax credits.[47] Thus, the Federal tax system tends to discourage the use of labor and encourage the use of capital. Farming is probably more capital-intensive as a result of Federal tax policies.[48]

Additionally, since some capital inputs are depreciated much faster than other capital inputs vis-a-vis their economic lives, certain types of capital are more tax-favored than other types of capital. For example, single-purpose agricultural buildings, which may have a useful economic life of 25 years, can be depreciated in five

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[46] The extent to which taxes on farm labor inputs are borne by employers is not known (Davenport, Boehlje, and Martin 1982, p. 26).

[47] These tax provisions only reduce capital costs when there is income and/or an income tax liability against which these provisions may be applied.

[48] Whether the substitution of capital for labor actually occurs depends on the after-tax cost of capital increments relative to the additional labor costs resulting from taxes.

years under the ACRS.[49] Alternatively, multi-purpose farm buildings with the same useful life must be depreciated over at least 18 years. Thus, the ACRS provides a tax incentive (i.e., greater tax deductions) for using single-purpose rather than multi-purpose agricultural buildings. In summary, the ACRS depreciation rules have probably altered the capital mix in farm production.

Farm Size

Data from the 1982 *Census of Agriculture* show a continuation of recent trends in farm sizes. Specifically, both very small farms (1–49 acres) and very large farms (1000 acres or more) continued to increase in number, while the number of medium-size farms (50–999 acres) decreased. Although the causes of these trends are multi-faceted and not completely understood (U.S. Department of Agriculture 1981), it seems clear that Federal tax policies have been supportive.

As detailed in this report, there are numerous tax provisions that can reduce the tax liability of farmers. However, "tax preferences are only beneficial to individuals who have tax liabilities" (Sisson 1979, p. 423). Generally, very small farms do not generate enough income to support a farmer and his family. These farmers must rely on other sources of income for the majority of their support. Thus, these part-time or "hobby" farmers have other income that can be offset by farm losses for tax purposes. Similarly, large farm operations, which often generate relatively high incomes, are likely to have a large enough tax liability to benefit fully from the numerous farm tax preferences. In contrast, medium-sized family farms may not generate enough income for tax purposes to be able to fully utilize the available tax benefits. Thus, the very small and very large farms may realize relatively larger tax savings from Federal tax preferences than medium sized farms.[50] This differential advantage tends to encourage increased numbers of the very small and very large farms.

Management Practices

Due to the numerous tax benefits available, farm management practices that result in the greatest before-tax return may not produce the maximum after-tax return. In other words, after-tax returns may be maximized by deviating from standard horticultural and/or husbandry practices in order to more fully utilize available tax preferences. To the extent that this occurs, economic efficiency can suffer.

Pork production is commonly used as an example of a farm industry where management practices have changed in order to take advantage of Federal tax benefits.

> Without the tax policy presently in effect, hog producers typically would stock their breeding herds with sows to be

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[49] Effective tax rates for five categories of farm capital are analyzed in Jeremias, Hrubovcak, and Durst (1983).

[50] Several studies have documented the advantages of farm tax preferences for large farms vis-á-vis smaller farms. See, for example, Eidman, Hanson and Welsh (1982). The impacts of tax policies on very small farm operations have not been studied extensively.

used for a number of farrowings before being sold. Sows usually produce larger litters and provide better care for the offspring after the first litter. In such an operation perhaps only one in every four of five females would be kept for breeding. The balance of the females would be sold as soon as ready for market, and almost invariably in less than 1 year. In an operation of fairly constant size, for each young female retained for breeding purposes, one mature sow would be marketed. Sales of sows held for breeding for more than a year would be a fairly low percentage of total sales.

The tax law, however, allows a lower tax rate on sales proceeds of animals held for breeding for more than a year. Such proceeds can be reported as long-term capital gains. The lower tax rate is an incentive to increase the proportion of sales from qualifying animals, by holding all gilts through only one farrowing. A one-litter sow usually is just over 1 year old and, thus, the proceeds received on sale qualify for the lower capital gains tax rate. Therefore, there is a tax incentive to farrow gilts and sell them after a year, replacing them with other gilts. This increases the number of sows moved through and the amount of income subject to capital gains treatment (rather than higher ordinary income rates). The practice of using gilts for a single litter, despite the inferior farrowing and mothering qualities, is adopted for the sole purpose of reporting a higher proportion of total hog sales as capital gain. (Davenport, Boehlje, and Martin 1982, p. 27.)

In addition to the hog industry, tax policies have also produced some changes in management practices in other farm businesses. For example, favorable depreciation rules have stimulated the use of single-purpose (rather than multi-purpose) agricultural buildings in several farm industries. Similarly, the increasing substitution of capital for labor in farming, presumably encouraged by Federal tax policies, has led to some changes in farm management practices. The efficiency impacts of these changes have not been determined.

Commodity Supplies and Prices

As noted previously, greater tax benefits are available for the production of some farm commodities than others. As a consequence, investment capital has tended to shift production from the least tax-favored farm commodities to the most tax-favored commodities. This flow of capital has stimulated production of the latter commodities, thereby leading to lower commodity prices.

The impacts of differential tax preferences on the prices of agricultural commodities has been studied most extensively for perennial crops.

> Because of concern that production would be overstimulated by investment syndicates, citrus and almond growers persuaded the Congress to repeal rules allowing deduction of development costs for almonds and citrus groves. (Davenport, Boehlje, and Martin 1982, p. 26.)

In a recent study Carman (1981) has determined that this change in tax policy had the intended effect on citrus and almond prices, i.e., prices rose as a result of decreased supplies. Furthermore, this tax change has resulted in lower prices for grapes and walnuts due to taxpayers shifting their investments from citrus and almonds to these other perennial crops.

Apart from investment shifts within agriculture as a result of differential tax preferences, the prices of all agricultural commodities are lower than they would be in the absence of income tax preferences to the extent that agriculture is more tax-favored than other businesses. In other words, if farming in general is subject to more preferential tax provisions than other businesses, then aggregate investment in this industry would be higher than it would have been without these tax provisions. Concomitantly, farm prices in the aggregate would be lower than they would be without this extra investment.

Analyses of this phenomenon to date are not conclusive. Sisson (1982) has shown that farmers have significantly lower tax burdens than nonfarmers, but he did not compare the tax burdens of farmers relative to other business persons. Gravelle (1982) determined that the effective tax rate on agricultural equipment and structures tended to be higher than the effective tax rate on comparable capital assets in some nonfarm industries, and lower than the effective tax rate on capital assets in other nonfarm industries. However, Gravelle did not include land and inventories in calculating aggregate tax rates by industry. Since reliance on land and the level of inventories varies greatly among industries, the rankings in the Gravelle study would probably change if these assets were included. In conclusion, it is not known whether current farm tax preferences have resulted in more nonfarm investment in agriculture than would have been the case without these tax preferences.

Summary

Although the precise impact of Federal income tax provisions on U.S. agriculture cannot be measured reliably, the direction of their impact seems clear. Federal income tax policies have:

a. exerted upward pressure on farmland prices;

b. helped concentrate farmland ownership with high-income farmers and nonfarmers, as opposed to beginning farmers;

c. encouraged the substitution of capital for labor;

d. supported growth trends in the number of very small farms and very large farms, at the expense of medium-sized family farms;

e. reduced efficiency in some farm activities (such as pork production) through induced changes in management practices; and

f. increased supplies and lowered prices for some farm commodities in particular, and possibly for all farm commodities in general.

In this report, there has been no attempt to evaluate the desirability of these tax impacts. In general, desirability is a matter of perspective. Although higher land prices increase the wealth of established farmers and enhance their access to debt capital, they

also make it more difficult for beginning farmers to get started in agriculture. Hence the former groups may favor this impact of Federal tax policies, while the latter group opposes it. Similarly, lower prices for some farm commodities may make it difficult for some family farmers to pay their bills and remain in agriculture. On the other hand, these lower prices benefit consumers of the particular commodities. So the bane of one segment of society is advantageous for another segment of society. Consequently, the desirability of most of these tax-induced changes is very difficult to determine.

Appendix. DETERMINING INDIVIDUAL INCOME TAX LIABILITY

Since the vast majority of farm income is reported on individual income tax returns (Form 1040), the basic steps involved in determining the Federal income tax liability of individuals are described in this appendix.[1] Only the most significant income tax provisions and/or the most relevant provisions for topics discussed in this report are summarized. For the sake of brevity, information on the historical development of and the rationale for these provisions has been omitted. Additional information on the meaning of the tax terms that constitute the remaining subheadings in this appendix can be found in Frankel and Talley (1980).

Adjusted Gross Income

Gross income for tax purposes is comprised of: employee compensation (such as wages, salaries, and tips); interest income; part of dividend income; net business income (or loss); 40 percent of gains (or losses) from the sale of capital assets; taxable pensions and annuities; supplemental income from rents, royalties, partnerships, estates, and trusts; and net farm income (or loss). Certain types of income are not subject to taxation and, therefore, do not have to be reported on individual income tax returns. This excluded income includes (among other things): interest on State and local government bonds; 60 percent of gains (or losses) from the sale of capital assets; transfer payments, such as unemployment compensation, social security payments, veterans' benefits, food stamps, etc.; and fringe benefits provided employees, such as medical plans and contributions to pension plans.

Apart from income that is not taxable, certain types of *expenses* can be subtracted from gross income, producing *adjusted gross income.* These expenses include (but are not limited to): moving expenses; certain expenses incurred in earning business income (such as nonreimbursed business travel expenses); payments into some retirement plans; penalties for early withdrawal of savings; alimony payments; and a special deduction for a married couple when both work. Adjusted gross income is a measure of an individual's (or family's) total income for tax purposes.

Taxable Income

Taxable income is determined by subtracting two amounts from adjusted gross income (AGI). The first subtraction is the excess of certain types of deductible expenditures over specified values. The second subtraction is for personal exemptions.

Deductions.—Deductible expenditures can be partitioned into four major groups (Pechman 1983, pp. 87-91). The first group involves unusually large, involuntary but necessary, *personal expenditures.* Extraordinarily high medical expenditures and uninsured casualty or theft losses are examples of these expenditures. In the former case a deduction is allowed for expenditures in excess of 5 percent of AGI. In the latter case only the loss in excess of 10 percent of AGI is deductible.

The second group of deductions include *expenditures for particular activities.* The effect of these deductions is to subsidize particular groups of taxpayers or particular activities (Pechman 1983, p. 89). For example, a deduction is allowed for mortgage interest payments on owner-occupied residences. In general, interest payments on any type of installment debt (such as a new car loan or a loan for investment purposes) are deductible. These deductions benefit homeowners and purchasers of goods on credit relative to renters and taxpayers who do not use (or do not have access to) credit for their purchases. Deductions for contributions to religious, educational, charitable, and other non-profit organizations are also contained in this group. Contributions to these organizations are deductible up to 50 percent of AGI. Contribu-

[1] The same basic steps are followed in calculating the income tax liability of corporations, but many of the refinements necessary in determining individual income tax liabilities do not arise since corporate taxation involves primarily business income and expenses. Many of the most significant corporate income tax provisions are described in Pechman (1983, pp. 131-135).

tions in excess of this limit can be carried over to subsequent tax years for up to five years.

The third group of deductible expenses are *taxes paid to State and local governments,* including income, property, and sales taxes. *Expenses incurred in earning non-business income* (i.e., wages, salaries, interest, and dividends) are the fourth group of deductible expenses. Examples include (but are not limited to): union and professional dues; fees for tax return preparation; fees for investment counselors; required work clothing; and rental fees for safe-deposit boxes used to store investment securities.

As stated above, the excess of these four types of itemized deductions over specified values can be subtracted from AGI. These specified values are: $3,400 for married couples filing a joint tax return or qualifying widows (or widowers) with one or more dependent children; $2,300 for single people or single people who are heads of households containing qualified dependents; and $1,700 for married people filing separate tax returns. Technically, these minimum deduction levels are known as zero-bracket amounts (for reasons explained below).

Exemptions.—The second amount that is deducted from AGI to obtain taxable income is based upon personal exemptions. These exemptions are $1,000 per person for the taxpayer, his or her spouse, and any dependents. For example, a husband and wife with three minor children are entitled to personal exemptions totalling $5,000. One additional exemption is granted to each spouse who is over 65 years of age, and another exemption is given to those who are blind.

Gross Tax

A taxpayer's *gross tax* is determined by applying progressively graduated tax rates to taxable income. The range of possible taxable incomes has been divided into steps or brackets (as shown in appendix table 1). A particular tax rate, known as the marginal tax rate, is applicable to each dollar of taxable income in each bracket. Marginal tax rates increase as taxable income increases from one bracket to the next, resulting in a progressive rate structure.

Example: Calculating gross tax from the tax table.

To illustrate how a taxpayer's gross tax is calculated, take the case of a married couple filing a joint tax return showing $32,000 of taxable income in 1983. As shown in appendix table 1, this taxable income falls within the $29,900 to $35,000 bracket. The gross tax for taxable income in this bracket is $5,034 plus 30 percent of the taxable income over $29,900, which is $2,100 in this example. Thus, the gross tax is $5,664 ($5,034 + $630).

Several aspects of the tax rate structure should be noted from appendix table 1. First, there is no gross tax until taxable income exceeds the zero-bracket amount ($3,400 in this case). Second, marginal tax rates begin at 11 percent and increase in small increments (usually less than five percent) up to a maximum of 50 percent for every dollar of taxable income above $109,400 for married persons filing a joint return. The tax rate schedule shown in appendix table 1 is one of four such schedules. The other three schedules are for (a) single persons, (b) single persons who are head of households, and (c) married persons filing separate returns. As noted previously, the zero-bracket amounts for these schedules are $2,300, $2,300 and $1,700, respectively. Different taxable income brackets are used on these schedules, but in all cases tax rates range from 11 to 50 percent. For taxpayers' convenience, tax tables with brackets in $50 increments are provided for taxable incomes up to $50,000 so that no calculations are needed to determine the gross tax.

APPENDIX TABLE 1.—GROSS INCOME TAX RATE SCHEDULE FOR MARRIED PERSONS FILING JOINT RETURNS AND QUALIFYING WIDOWS AND WIDOWERS, 1983

For taxable income		Gross tax is
Over	But not over	
$0	$3,400	$0 plus 0 percent of the amount over $0
$3,400	5,500	0 plus 11 percent of the amount over 3,400
$5,500	7,600	231 plus 13 percent of the amount over 5,500
$7,600	11,900	504 plus 15 percent of the amount over 7,600
$11,900	16,000	1,149 plus 17 percent of the amount over 11,900
$16,000	20,200	1,846 plus 19 percent of the amount over 16,000
$20,200	24,600	2,644 plus 23 percent of the amount over 20,200
$24,600	29,900	3,656 plus 26 percent of the amount over 24,600

APPENDIX TABLE 1.—GROSS INCOME TAX RATE SCHEDULE FOR MARRIED PERSONS FILING JOINT RETURNS AND QUALIFYING WIDOWS AND WIDOWERS, 1983—Continued

For taxable income		Gross tax is
Over	But not over	
$29,900	35,200	5,034 plus 30 percent of the amount over 29,900
$35,200	45,800	6,624 plus 35 percent of the amount over 35,200
$45,800	60,000	10,334 plus 40 percent of the amount over 45,800
$60,000	85,600	16,014 plus 44 percent of the amount over 60,000
$85,600	109,400	27,278 plus 48 percent of the amount over 85,600
$109,400		38,702 plus 50 percent of the amount over 109,400

Source: U.S. Department of the Treasury. Internal Revenue Service. Instructions for Preparing Form 1040. Washington [1983] p. 41.

Tax Liability

A taxpayer's *tax liability* is the actual amount of Federal income tax owed by that taxpayer. This is determined by deducting various tax credits from the gross tax and then adding other income-related taxes to the difference. Available *tax credits* include (but are not limited to) a foreign tax credit, investment tax credit (discussed in the body of this report), and credit for child and dependent care expenses. The other *income-related taxes* include a self-employment tax, an alternative minimum tax[2], tax from the recapture of past investment tax credits, and some other taxes.

Offsetting this tax liability are usually some *payments* made by the taxpayer during the tax year. For example, some Federal income taxes are normally withheld from employees' paychecks during a year.[3] Additionally, taxpayers running a business are required to make estimated tax payments on a quarterly basis. Taxpayers with an AGI less than $10,000 and having a child may be eligible for an earned income credit.[4] There is also a credit available for Federal taxes paid on special fuels and oil used in a business. The total of these and other payments are compared with the taxpayer's tax liability to determine whether a refund or an additional payment is appropriate.

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[2] "For taxpayers with certain tax preferences, the law requires payment of an *alternative minimum tax* to ensure that the tax is at least a minimum percentage of a broad measure of income. The tax base for the alternative minimum tax is adjusted gross income plus selected tax preferences less certain itemized deductions . . . . An exemption of $30,000 ($40,000 for married couples) is allowed and the tax rate is 20 percent of alternative minimum taxable income". (Pechman 1983, pp. 65–66) This tax is discussed in greater detail in the body of this report.

[3] In fact, there is a penalty assessed on taxpayers whose withholding payments total less than 80 percent of their tax liability.

[4] This earned income credit actually makes it possible for some low AGI taxpayers to receive more from the Federal income tax system than they contribute to it, i.e., their effective tax rate is negative.

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